NATURAL RESOURCES CONSERVATION SERVICE

CONSERVATION PRACTICE STANDARD

FENCE

(Ft.)

CODE 382

DEFINITION

A constructed barrier to animals or people.

PURPOSE

This practice facilitates the accomplishment of conservation objectives by providing a means to control movement of animals and people, including vehicles.

CONDITIONS WHERE PRACTICE APPLIES

This practice may be applied on any area where management of animal or human movement is needed.

CRITERIA

General Criteria Applicable to All Purposes

Fencing materials, type and design of fence installed shall be of a high quality and durability. The type and design of fence installed will meet the management objectives and site challenges. Based on need, fences may be permanent, portable, or temporary.

Fencing shall consist of acceptable designs, materials, and methods as described in NH eFOTG, Section IV, NH Fence Construction Specifications

Fences shall be positioned to facilitate management requirements. Ingress/egress features such as gates and cattle guards shall be planned. The fence design and installation should have the life expectancy appropriate for management objectives and shall follow all federal, state and local laws and regulations.

Height, size, spacing and type of materials used will provide the desired control, life expectancy, and management of animals and people of concern.

Permanent perimeter fencing shall consist of the acceptable type defined by Table 1. When the fence is used for multiple species, the fence selection shall meet the requirement of the limiting species.

Permanent roadside fences shall be constructed at least 15 feet from the road edge where snow plows or snow bank will compromise the effective life of the fence.

Live trees in good health may be used in place of posts or corners for smooth wire permanent perimeter fences when shallow soil depth to ledge/bedrock or other extreme soil conditions do not allow posts to be embedded to the appropriate depth. Wire **shall not** be fastened directly to the tree or wrapped around the tree. Wire shall be attached to a wood board or rolling j-bolt that is attached to the tree as described in NH Fence Construction Specifications. Informal approval by the NRCS field office staff is required prior to using trees as posts.

A minimum of 18” of clearance between the fence and any trees is required to prevent trees from growing into the fence during the planned lifespan of the fence.

When the intended use of the fence is to protect people from safety hazards, the fence shall be a minimum of 60 inches above grade and not allow passage of a 6” sphere between any fence member. All openings shall have gates that can be shut and fastened.

CONSIDERATIONS

The fence design and location should consider: topography, soil properties, livestock management and safety, livestock trailing, wildlife class and movement, location and adequacy of water facilities, development of potential grazing systems, human access and safety, landscape aesthetics, erosion problems,

moisture conditions, flooding potential, stream crossings, and durability of materials. When appropriate, natural barriers should be utilized instead of fencing.

Where applicable, cleared rights-of-way may be established which would facilitate fence construction and maintenance. Avoid clearing of vegetation during the nesting season for migratory birds.

Fences across gullies, canyons or streams may require special bracing, designs or approaches.

Fence design and location should consider ease of access for construction, repair and maintenance.

Fence construction requiring the removal of existing unusable fence should provide for the proper disposal of scrap materials to prevent harm to animals, people and equipment.

Wire should normally be attached on the side of the post receiving the most animal pressure.

Treatment of wood posts with certain preservatives may not be allowed in certified organic systems. Producers should check with their certifying agency regarding requirements.

PLANS AND SPECIFICATIONS

Plans and specifications are to be prepared for all fence types, installations and specific sites. Requirements for applying the practice to achieve all of its intended purposes shall be described.

The completed work is to be checked and documented using the NH-382 job sheet to verify that the practice is complete according to NRCS standards and specifications.

NRCS field staff shall contact the state agronomist for inquiries relating to fencing for grazing systems and livestock exclusion, and the engineering staff for inquiries relating to safety fencing.

OPERATION AND MAINTENANCE

Regular inspection of fences should be part of an ongoing maintenance program. Inspection of fences after storms and other disturbance events is necessary to insure the continued proper function of the fence. Maintenance and repairs will be performed in a timely manner as needed, including tree/limb removal and water gap replacement.

Electric fences shall be checked regularly to determine the voltage of the fence. If voltage is not sufficient, determine the cause and correct it. Any vegetation in contact with the fence can cause decreased voltage. Vegetative growth beneath and around the electric fence should be controlled mechanically by grazing or mowing, or as a last resort, with chemicals.

Remove and properly discard all broken fencing material and hardware. All necessary precautions should be taken to ensure the safety of construction and maintenance crews. Wire that is overstretched may break and recoil. Eye and hand protection should be worn.

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Table 1
Permanent Perimeter Fence Selection Criteria
Fence design and construction must meet the minimum requirements for controlling specific animal types

Fence Type	Min. Height of Top Wire (Inches)	Suggested Spacing (Inches Above Ground Level)
Cattle		
3 Electrified HTS/HTA Wires	42	22, 32, 42 – min 2 hot
48" HT Woven Wire + 1 Top Wire	48	48
Wooden Boards	48	16, 32, 48
Cattle with Calves		
4 Electrified HTS/HTA Wires	42	12, 22, 32, 42 – min 3 hot
48" HT Woven Wire + 1 Top Wire	48	48
Wooden Boards	48	16, 32, 48
Bulls, Bison, and Feedlot		
7 Electrified HTS/HTA Wires	60	15 to 60 evenly spaced – min 3 hot
60" HT Woven + 1 Top + 1 Offset Wire	60	HTS/HTA wire offset inside at 32-48
Goats, Sheep, and Hogs		
6 Electrified HTS/HTA Wires	46	6, 12, 18, 26, 36, 46 – min 3 hot
48" HT Woven Wire + 1 Top Wire	48	48 (use offset at 12-24 w/hogs)
Horses, Llamas, and Alpacas		
4 Electrified Poly-coated HTS Wires	48	16 to 48 evenly spaced
4 Electrified HTA Wires	48	16 to 48 evenly spaced
48" HT Woven Wire + 1 Top Wire	48	48
Wood Boards	48	16, 32, 48
Deer		
96" HT Woven Wire	96	96
Chickens and Turkeys		
48" HT Woven Wire + 1 Top Wire	48	48
Safety		
60" HT Woven Wire	60	60
60" Chain Link	60	60

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Abbreviations and specifications for use
HT = High tensile
HTS = 12.5 gauge high tensile smooth steel wire with class 3 galvanization or zinc-aluminum or better
HTA = 12.5 gauge high tensile smooth aluminum alloy wire
Top wire = (i) 2 twisted strands of 15.5 gauge high tensile wire with class 3 galvanizing (or better) with 4 point barbs on 5 inch centers, or (ii) electrified HTS/HTA placed at least 4 inches above woven wire.

Barbed wire shall never be electrified or used with an electrified fence. Barbed wire or bare HTS wire shall not be used for horses.

Based on the type of livestock, use the information in this table as the minimum criteria for fence purpose. More strands of wire and a different spacing may be required depending on the fence manufacturer's recommendations and landowner objectives.

With woven wire and board fences consider using one or more wires offset on the inside to prevent livestock from rubbing or leaning on fence. Offset wire should be electrified HTS, HTA, or polyrope/polywire. Offset wires should be a minimum of 6" away from the fence posts.